

unknown

#5

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/516,908
Source: PCF
Date Processed by STIC: 12-17-04

ENTERED



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/516,908

DATE: 12/17/2004
TIME: 15:54:52

Input Set : A:\60020830-0003 sequence listing.txt
Output Set: N:\CRF4\12172004\J516908.raw

3 <110> APPLICANT: Wun, Tze-Chein
 5 <120> TITLE OF INVENTION: Novel Recombinant Anticoagulant Proteins
 7 <130> FILE REFERENCE: 60020830-0003
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/516,908
 C--> 10 <141> CURRENT FILING DATE: 2004-12-03
 12 <150> PRIOR APPLICATION NUMBER: US 06/386,932
 13 <151> PRIOR FILING DATE: 2002-06-06
 15 <160> NUMBER OF SEQ ID NOS: 41
 17 <170> SOFTWARE: PatentIn version 3.2
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 382
 21 <212> TYPE: PRT
 22 <213> ORGANISM: Artificial
 24 <220> FEATURE:
 25 <223> OTHER INFORMATION: Fusion protein: human-derived ANV with TAP
 27 <400> SEQUENCE: 1
 29 Ala Tyr Asn Arg Leu Cys Ile Lys Pro Arg Asp Trp Ile Asp Glu Cys
 30 1 5 10 15
 33 Asp Ser Asn Glu Gly Gly Glu Arg Ala Tyr Phe Arg Asn Gly Lys Gly
 34 20 25 30
 37 Gly Cys Asp Ser Phe Trp Ile Cys Pro Glu Asp His Thr Gly Ala Asp
 38 35 40 45
 41 Tyr Tyr Ser Ser Tyr Asn Asp Cys Phe Asn Ala Cys Ile Gly Ser Ala
 42 50 55 60
 45 Gln Val Leu Arg Gly Thr Val Thr Asp Phe Pro Gly Phe Asp Glu Arg
 46 65 70 75 80
 49 Ala Asp Ala Glu Thr Leu Arg Lys Ala Met Lys Gly Leu Gly Thr Asp
 50 85 90 95
 53 Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg Ser Asn Ala Gln Arg
 54 100 105 110
 57 Gln Glu Ile Ser Ala Ala Phe Lys Thr Leu Phe Gly Arg Asp Leu Leu
 58 115 120 125
 61 Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe Glu Lys Leu Ile Val
 62 130 135 140
 65 Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys His
 66 145 150 155 160
 69 Ala Leu Lys Gly Ala Gly Thr Asn Glu Lys Val Leu Thr Glu Ile Ile
 70 165 170 175
 73 Ala Ser Arg Thr Pro Glu Glu Leu Arg Ala Ile Lys Gln Val Tyr Glu
 74 180 185 190
 77 Glu Glu Tyr Gly Ser Ser Leu Glu Asp Asp Val Val Gly Asp Thr Ser
 78 195 200 205
 81 Gly Tyr Tyr Gln Arg Met Leu Val Val Leu Leu Gln Ala Asn Arg Asp

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82      210          215          220
85 Pro Asp Ala Gly Ile Asp Glu Ala Gln Val Glu Gln Asp Ala Gln Ala
86 225          230          235          240
89 Leu Phe Gln Ala Gly Glu Leu Lys Trp Gly Thr Asp Glu Glu Lys Phe
90          245          250          255
93 Ile Thr Ile Phe Gly Thr Arg Ser Val Ser His Leu Arg Lys Val Phe
94          260          265          270
97 Asp Lys Tyr Met Thr Ile Ser Gly Phe Gln Ile Glu Glu Thr Ile Asp
98          275          280          285
101 Arg Glu Thr Ser Gly Asn Leu Glu Gln Leu Leu Ala Val Val Lys
102 290          295          300
105 Ser Ile Arg Ser Ile Pro Ala Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala
106 305          310          315          320
109 Met Lys Gly Ala Gly Thr Asp Asp His Thr Leu Ile Arg Val Met Val
110          325          330          335
113 Ser Arg Ser Glu Ile Asp Leu Phe Asn Ile Arg Lys Glu Phe Arg Lys
114          340          345          350
117 Asn Phe Ala Thr Ser Leu Tyr Ser Met Ile Lys Gly Asp Thr Ser Gly
118          355          360          365
121 Asp Tyr Lys Lys Ala Leu Leu Leu Ala Gly Glu Asp Asp
122          370          375          380
125 <210> SEQ ID NO: 2
126 <211> LENGTH: 378
127 <212> TYPE: PRT
128 <213> ORGANISM: Artificial
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Fusion protein: human-derived ANV with artificial 6L15 (a
variant
132      of naturally-occurring bovine pancreatic trypsin inhibitor)
134 <400> SEQUENCE: 2
136 Ala Gln Val Leu Arg Gly Thr Val Thr Asp Phe Pro Gly Phe Asp Glu
137 1          5          10          15
140 Arg Ala Asp Ala Glu Thr Leu Arg Lys Ala Met Lys Gly Leu Gly Thr
141          20          25          30
144 Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg Ser Asn Ala Gln
145          35          40          45
148 Arg Gln Glu Ile Ser Ala Ala Phe Lys Thr Leu Phe Gly Arg Asp Leu
149          50          55          60
152 Leu Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe Glu Lys Leu Ile
153 65          70          75          80
156 Val Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys
157          85          90          95
160 His Ala Leu Lys Gly Ala Gly Thr Asn Glu Lys Val Leu Thr Glu Ile
161          100         105         110
164 Ile Ala Ser Arg Thr Pro Glu Glu Leu Arg Ala Ile Lys Gln Val Tyr
165          115         120         125
168 Glu Glu Glu Tyr Gly Ser Ser Leu Glu Asp Asp Val Val Gly Asp Thr
169          130         135         140
172 Ser Gly Tyr Tyr Gln Arg Met Leu Val Val Leu Leu Gln Ala Asn Arg
173 145         150         155         160

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Input Set : A:\60020830-0003 sequence listing.txt
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176 Asp Pro Asp Ala Gly Ile Asp Glu Ala Gln Val Glu Gln Asp Ala Gln
 177 165 170 175
 180 Ala Leu Phe Gln Ala Gly Glu Leu Lys Trp Gly Thr Asp Glu Glu Lys
 181 180 185 190
 184 Phe Ile Thr Ile Phe Gly Thr Arg Ser Val Ser His Leu Arg Lys Val
 185 195 200 205
 188 Phe Asp Lys Tyr Met Thr Ile Ser Gly Phe Gln Ile Glu Glu Thr Ile
 189 210 215 220
 192 Asp Arg Glu Thr Ser Gly Asn Leu Glu Gln Leu Leu Leu Ala Val Val
 193 225 230 235 240
 196 Lys Ser Ile Arg Ser Ile Pro Ala Tyr Leu Ala Glu Thr Leu Tyr Tyr
 197 245 250 255
 200 Ala Met Lys Gly Ala Gly Thr Asp Asp His Thr Leu Ile Arg Val Met
 201 260 265 270
 204 Val Ser Arg Ser Glu Ile Asp Leu Phe Asn Ile Arg Lys Glu Phe Arg
 205 275 280 285
 208 Lys Asn Phe Ala Thr Ser Leu Tyr Ser Met Ile Lys Gly Asp Thr Ser
 209 290 295 300
 212 Gly Asp Tyr Lys Lys Ala Leu Leu Leu Ala Gly Glu Asp Asp Met
 213 305 310 315 320
 216 His Pro Asp Phe Cys Leu Glu Pro Pro Tyr Asp Gly Pro Cys Arg Ala
 217 325 330 335
 220 Leu His Leu Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr
 221 340 345 350
 224 Phe Tyr Tyr Gly Gly Cys Leu Ala Lys Arg Asn Asn Phe Glu Ser Ala
 225 355 360 365
 228 Glu Asp Cys Met Arg Thr Cys Gly Gly Ala
 229 370 375
 232 <210> SEQ ID NO: 3
 233 <211> LENGTH: 376
 234 <212> TYPE: PRT
 235 <213> ORGANISM: Artificial
 237 <220> FEATURE:
 238 <223> OTHER INFORMATION: Fusion protein:human-derived ANV with synthetic human K-APP
 240 <400> SEQUENCE: 3
 242 Ala Gln Val Leu Arg Gly Thr Val Thr Asp Phe Pro Gly Phe Asp Glu
 243 1 5 10 15
 246 Arg Ala Asp Ala Glu Thr Leu Arg Lys Ala Met Lys Gly Leu Gly Thr
 247 20 25 30
 250 Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg Ser Asn Ala Gln
 251 35 40 45
 254 Arg Gln Glu Ile Ser Ala Ala Phe Lys Thr Leu Phe Gly Arg Asp Leu
 255 50 55 60
 258 Leu Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe Glu Lys Leu Ile
 259 65 70 75 80
 262 Val Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys
 263 85 90 95
 266 His Ala Leu Lys Gly Ala Gly Thr Asn Glu Lys Val Leu Thr Glu Ile
 267 100 105 110

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Input Set : A:\60020830-0003 sequence listing.txt
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270 Ile Ala Ser Arg Thr Pro Glu Glu Leu Arg Ala Ile Lys Gln Val Tyr
 271 115 120 125
 274 Glu Glu Glu Tyr Gly Ser Ser Leu Glu Asp Asp Val Val Gly Asp Thr
 275 130 135 140
 278 Ser Gly Tyr Tyr Gln Arg Met Leu Val Val Leu Leu Gln Ala Asn Arg
 279 145 150 155 160
 282 Asp Pro Asp Ala Gly Ile Asp Glu Ala Gln Val Glu Gln Asp Ala Gln
 283 165 170 175
 286 Ala Leu Phe Gln Ala Gly Glu Leu Lys Trp Gly Thr Asp Glu Glu Lys
 287 180 185 190
 290 Phe Ile Thr Ile Phe Gly Thr Arg Ser Val Ser His Leu Arg Lys Val
 291 195 200 205
 294 Phe Asp Lys Tyr Met Thr Ile Ser Gly Phe Gln Ile Glu Glu Thr Ile
 295 210 215 220
 298 Asp Arg Glu Thr Ser Gly Asn Leu Glu Gln Leu Leu Ala Val Val
 299 225 230 235 240
 302 Lys Ser Ile Arg Ser Ile Pro Ala Tyr Leu Ala Glu Thr Leu Tyr Tyr
 303 245 250 255
 306 Ala Met Lys Gly Ala Gly Thr Asp Asp His Thr Leu Ile Arg Val Met
 307 260 265 270
 310 Val Ser Arg Ser Glu Ile Asp Leu Phe Asn Ile Arg Lys Glu Phe Arg
 311 275 280 285
 314 Lys Asn Phe Ala Thr Ser Leu Tyr Ser Met Ile Lys Gly Asp Thr Ser
 315 290 295 300
 318 Gly Asp Tyr Lys Lys Ala Leu Leu Leu Ala Gly Glu Asp Asp Glu
 319 305 310 315 320
 322 Val Cys Ser Glu Gln Ala Glu Thr Gly Pro Cys Arg Ala Met Ile Ser
 323 325 330 335
 326 Arg Trp Tyr Phe Asp Val Thr Glu Gly Lys Cys Ala Pro Phe Phe Tyr
 327 340 345 350
 330 Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Asp Thr Glu Glu Tyr Cys
 331 355 360 365
 334 Met Ala Val Cys Gly Ser Ala Ile
 335 370 375
 338 <210> SEQ ID NO: 4
 339 <211> LENGTH: 459
 340 <212> TYPE: PRT
 341 <213> ORGANISM: Artificial
 343 <220> FEATURE:
 344 <223> OTHER INFORMATION: Fusion protein: human-derived ANV with KK-TFPI (a human sequence)
 346 <400> SEQUENCE: 4
 348 Ala Gln Val Leu Arg Gly Thr Val Thr Asp Phe Pro Gly Phe Asp Glu
 349 1 5 10 15
 352 Arg Ala Asp Ala Glu Thr Leu Arg Lys Ala Met Lys Gly Leu Gly Thr
 353 20 25 30
 356 Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg Ser Asn Ala Gln
 357 35 40 45
 360 Arg Gln Glu Ile Ser Ala Ala Phe Lys Thr Leu Phe Gly Arg Asp Leu
 361 50 55 60

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Input Set : A:\60020830-0003 sequence listing.txt
Output Set: N:\CRF4\12172004\J516908.raw

364 Leu Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe Glu Lys Leu Ile
365 65 70 75 80
368 Val Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys
369 85 90 95
372 His Ala Leu Lys Gly Ala Gly Thr Asn Glu Lys Val Leu Thr Glu Ile
373 100 105 110
376 Ile Ala Ser Arg Thr Pro Glu Glu Leu Arg Ala Ile Lys Gln Val Tyr
377 115 120 125
380 Glu Glu Glu Tyr Gly Ser Ser Leu Glu Asp Asp Val Val Gly Asp Thr
381 130 135 140
384 Ser Gly Tyr Tyr Gln Arg Met Leu Val Val Leu Leu Gln Ala Asn Arg
385 145 150 155 160
388 Asp Pro Asp Ala Gly Ile Asp Glu Ala Gln Val Glu Gln Asp Ala Gln
389 165 170 175
392 Ala Leu Phe Gln Ala Gly Glu Leu Lys Trp Gly Thr Asp Glu Glu Lys
393 180 185 190
396 Phe Ile Thr Ile Phe Gly Thr Arg Ser Val Ser His Leu Arg Lys Val
397 195 200 205
400 Phe Asp Lys Tyr Met Thr Ile Ser Gly Phe Gln Ile Glu Glu Thr Ile
401 210 215 220
404 Asp Arg Glu Thr Ser Gly Asn Leu Glu Gln Leu Leu Leu Ala Val Val
405 225 230 235 240
408 Lys Ser Ile Arg Ser Ile Pro Ala Tyr Leu Ala Glu Thr Leu Tyr Tyr
409 245 250 255
412 Ala Met Lys Gly Ala Gly Thr Asp Asp His Thr Leu Ile Arg Val Met
413 260 265 270
416 Val Ser Arg Ser Glu Ile Asp Leu Phe Asn Ile Arg Lys Glu Phe Arg
417 275 280 285
420 Lys Asn Phe Ala Thr Ser Leu Tyr Ser Met Ile Lys Gly Asp Thr Ser
421 290 295 300
424 Gly Asp Tyr Lys Lys Ala Leu Leu Leu Ala Gly Glu Asp Asp Met
425 305 310 315 320
428 His Ser Phe Cys Ala Phe Lys Ala Asp Asp Gly Pro Cys Lys Ala Ile
429 325 330 335
432 Met Lys Arg Phe Phe Asn Ile Phe Thr Arg Gln Cys Glu Glu Phe
433 340 345 350
436 Ile Tyr Gly Gly Cys Glu Gly Asn Gln Asn Arg Phe Glu Ser Leu Glu
437 355 360 365
440 Glu Cys Lys Lys Met Cys Thr Arg Asp Asn Ala Asn Arg Ile Ile Lys
441 370 375 380
444 Thr Thr Leu Gln Gln Glu Lys Pro Asp Phe Cys Phe Leu Glu Glu Asp
445 385 390 395 400
448 Pro Gly Ile Cys Arg Gly Tyr Ile Thr Arg Tyr Phe Tyr Asn Asn Gln
449 405 410 415
452 Thr Lys Gln Cys Glu Arg Phe Lys Tyr Gly Gly Cys Leu Gly Asn Met
453 420 425 430
456 Asn Asn Phe Glu Thr Leu Glu Glu Cys Lys Asn Ile Cys Glu Asp Gly
457 435 440 445
460 Pro Asn Gly Phe Gln Val Asp Asn Tyr Gly Thr

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/17/2004
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Input Set : A:\60020830-0003 sequence listing.txt
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29
Seq#:30,31,32,33,34,35,36,37,38,39,40,41

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/516,908

DATE: 12/17/2004

TIME: 15:54:53

Input Set : A:\60020830-0003 sequence listing.txt
Output Set: N:\CRF4\12172004\J516908.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date